LESSON 11.7

NAME _____ DATE _____

Practice A

For use with pages 627–632

1. Which of the following is an equation of a circle with center at the origin and radius r?

   A. $(x + 3)^2 + y^2 = r^2$ **B.** $x^2 + (y - 1)^2 = r^2$

   C. $x^2 + y^2 = r^2$ **D.** $(x + 1)^2 + (y - 2)^2 = r^2$

2. Which of the following is an equation of a circle with center (1, 1) and radius r?

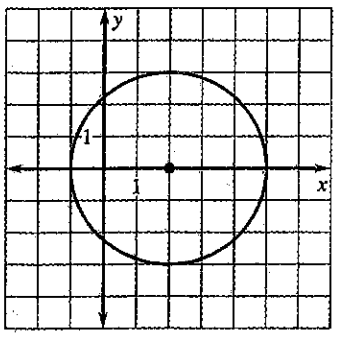
   A. $(x + 1)^2 + (y + 1)^2 = r^2$ **B.** $x^2 + y^2 = r^2$

   C. $(x + 1)^2 - (y + 1)^2 = r^2$ **D.** $(x - 1)^2 + (y - 1)^2 = r^2$

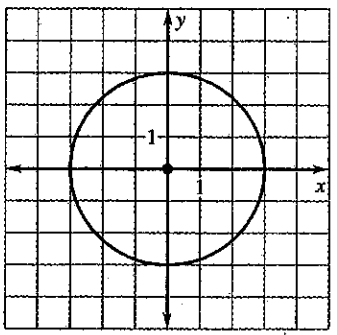
Match the equation with its graph.

3. $x^2 + y^2 = 9$ 4. $x^2 + (y - 2)^2 = 9$ 5. $(x - 2)^2 + y^2 = 9$

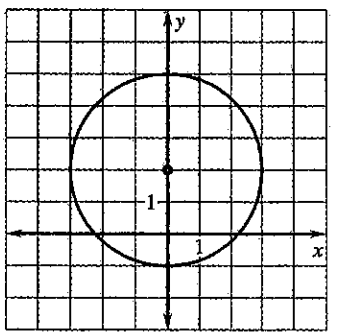
A.



B.

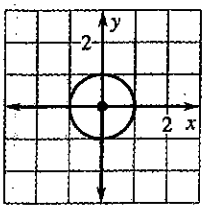


C.



Give the radius and the coordinates of the center. Write the equation of the circle in standard form.

6.



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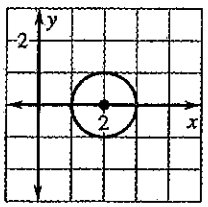

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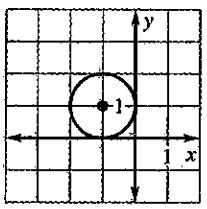

Give the radius and the coordinates of the center of the circle for the given equation.

9. $x^2 + y^2 = 16$ 10. $(x - 2)^2 + y^2 = 4$

11. $x^2 + (y + 1)^2 = 9$ 12. $(x + 2)^2 + (y - 1)^2 = 25$

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Practice B

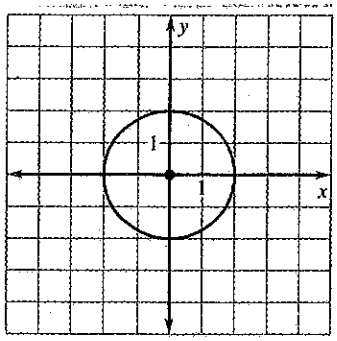
For use with pages 627–632

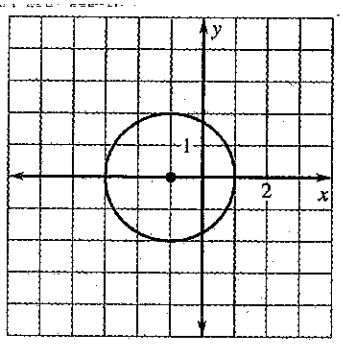
1. Write an equation of a circle with center at the origin and radius r.
2. Write the standard equation of a circle with center at (h, k) and radius r.

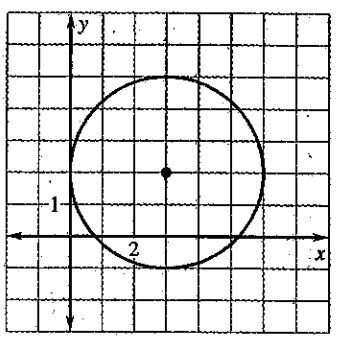
Give the radius and the coordinates of the center of the circle for the given equation. Then graph the circle.

3. $x^2 + y^2 = 25$
4. $(x - 3)^2 + y^2 = 16$
5. $x^2 + (y + 3)^2 = 9$
6. $(x + 1)^2 + (y - 2)^2 = 4$

Give the radius and the coordinates of the center of the circle. Then write the standard equation of the circle.

7. 

8. 

9. 

Write the standard equation of the circle with the given center and radius.

10. center (0, 0), radius 3
11. center (−1, 0), radius 5
12. center (0, 2), radius 2
13. center (1, 1), radius 4

If the left side of an equation of a circle is equal to the right side after substituting the coordinates of a point into the equation, then the point is *on* the circle. The equation of a circle is $x^2 + (y + 1)^2 = 9$. Tell whether the point is *on* the circle. Explain your reasoning.

14. (0, 1)
15. (0, 2)
16. (1, 0)

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